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REVIEW OF BRIEF PRESENTED TO THE PROVINCIAL GOVERNMENT

BY THE FARMER'S UNION OF ALBERTA ON

TAXATION OF FARM PROPERTY

Alberta Department of Agriculture

Economics Division

Edmonton

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Report Requested by
E. E. Ballantyne, D.V.M.
Deputy Minister of Agriculture



December 13, 1968

by

W. M. Bayda

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# REVIEW OF BRIEF PRESENTED TO THE PROVINCIAL GOVERNMENT BY THE FARMER'S UNION OF ALBERTA ON TAXATION OF FARM PROPERTY

W. M. Bayda

#### A. PROBLEM

The government is always interested in trying to make our taxation system as equitable as possible. Traditionally farm buildings have been exempted from property taxes whereas most of the non-farm buildings were not. In recent years, most of the provincial governments have been looking into the possibility of assessing and taxing both farm and non-farm buildings alike.

People normally object to taxation regardless of the rationale which might be used to justify it. Similarly farmers object to a system which would tax their farm buildings. It is to be expected that the Farmer's Union working on behalf of the farmers would support the farmers' displeasure with any such tax in the presentation of this brief.

An argument used by the Farmer's Union against taxing farm buildings is that farmers are already paying more than their share of taxes. Another argument is that farm incomes are low and any additional taxes would be a great burden. It is often stated that farmers expecially those with small operating units are in a very vulnerable position and any increase in their operating expenses would ruin many of them.

It is somewhat difficult to know how to define a farmer so that a precise measure of the number of farmers can be made or to determine their relative importance in our economy. The number of farmers we have seems to depend on our definition. The census definition of a farmer is a person who produces more than \$50 of farm commodity a year and has at least one acre of land. According to the census there were 69,411 census farmers in Alberta in 1966. Farm population is shown in Table 1.

The Department of National Revenue defines the farmer somewhat differently. By their definition a farmer is a person whose gross farm sales exceeds his non-farm income such as wages and salaries. By this

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definition many of the census farmer would be eliminated. In 1966, the Department of National Revenue reported that there were 29,061 farmers in Alberta. Some of the census farmers may not have filled income tax returns and many were not classified as farmers for tax purposes.

Practically all the people living on the outside of town limits have their buildings exempted from property tax. The number of persons receiving the building exemption would be estimated to be fairly close to the census count of farmers. There are many people who are not farmers but are getting their buildings exempted for purposes of property taxes and thus gaining an advantage over people living in towns.

#### B. PHILOSOPHY OF TAXATION

The older concept of municipal taxation was that taxes should be levied to provide the necessary services. The amount of tax a person should pay would be related to the municipal services he receives. This concept is not entirely followed in practice. For example, people who have no children still have to pay taxes to aid in education other people's children. People who live along provincial highways who do not need to use municipal roads still have to pay for the maintenance of these roads. Welfare cases contribute very little to taxes but draw out a great deal from tax revenue in the form of assistance.

Assessing land productivity was often said to be a basis of collecting taxes. Land with a higher agricultural productivity had a higher assessment and tax levy. This was an idealistic concept because no two farmers operate under the same degree of efficiency and their actual income is never really taken into account when computing their land assessment.

During the early settlement days, land taxes were used to discourage speculation. Whenever anyone took possession of land he was expected to improve and use it or else return it to the crown. Taxes were collected whether the land was being utilized or not. Even today, large portions

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of the farm area is not productive but tax has to be paid on it.

Speculation is common today on land around urban centres where it is being bought up for speculative gains on resale to urban sprawl. The price that is being paid in itself is indicative of the purpose or use for which it is being bought up. This land however is assessed for agricultural potential and not for its real potential use. We should be taxing this land for purposes which the market has already designated it for. If we were consistent with our earlier policies of reducing speculation we would have a much higher taxation assessment.

It is often stated that taxes should be collected on the basis of ability to pay. A person with a lower income should not be expected to pay as much as a person with a higher income. It would seem pointless to try and collect tax revenue from a person who does not have any means of paying it. However, in municipal taxation, income is never really assessed or even considered. A person who is in tax arrears because of insufficient income gets his land put up for sale for tax arrears. His income position is really not a consideration. We rarely see municipalities cancelling tax arrears for persons with low incomes.

#### C. METHODOLOGY

In examining the municipal tax structure, only the secondary source of information can be used. It would be impossible to survey the individual farmers. A good source of information on municipal taxation is the annual reports put out by the Department of Municipal Affairs. This information is accurate and readily comparable. Although taxes paid by the farmers are not specifically tabulated we used the rural tax figures as an indicator of farm taxes.

To compare farm income with the average incomes in Alberta by means of enumeration would be beyond the resources of any study group. Even if such an enumeration was conducted, it is doubtful whether accurate figures could be obtained. Past enumeration has shown that income statistics were the least reliable of any statistics gathered. The general public is reticient to make a complete income disclosure. However, when-

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ever a group is presenting a brief in its own interest, as the farmers are doing in this case, the farmers assume that everyone knows of their income position. Although the farmers' assumption of what their relative income positions are, might be entirely wrong.

#### D. COMPARATIVE ANALYSIS OF PROPERTY TAX

The most useful and meaningful comparison of property tax levy which can be made for any area is the amount of tax that is paid in an area on a per capita basis. A high per capita tax levy would indicate a greater tax burden in an area than would a low per capita levy. In Tables 2 to 8, we computed the per capita tax levy for each of the seven main municipal divisions. The average per capita tax levy was computed for two periods 1957 to 1961 and 1962 to 1966. The change in the per capita tax levy is shown in the following summarization.

	Cities	Towns	Villages
Per Capita			
1957-1961	\$ 96.24	\$68.43	\$64.47
1962-1966	118.43	88.20	81.66
Tax Change			
Dollars	22.19	19.17	17.19
Percent	23%	29%	27%

The above analysis would indicate that the cities have the highest per capita tax levy and the lowest taxes are paid in villages and towns. We also observe that in the last ten years villages and towns have had the highest tax increases.

TAX LEVY - RURAL AREAS

Per Capita	Counties	Municipal Districts	Improvement Districts	Special Areas
1957-1961	\$ 88.05	\$ 85.38	\$33.12	\$56.89
1962-1966	113.89	106.40	65.51	88.10

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Tax Change	Counties	Municipal Districts	Improvement Districts	Special Areas
Dollars	\$ 25.84	\$ 21.02	\$ 32.39	\$ 31.21
Percent	29%	25%	98%	55%

In rural areas, the highest per capita property tax was paid in counties and municipal districts, but the greatest increase in taxation has been in improvement districts and special areas.

CHANGE IN TAX LEVY - URBAN AND RURAL AREAS

	Urban	Rural
Per Capita		
1957-1961	\$ 87.95	\$ 75.50
1962-1966	110.91	101.49
Tax Change		
Dollars	\$ 22.96	\$ 32.68
Percent	26%	34%

At the present time, as indicated by the above figures, there does not appear to be any significant difference between the taxes paid by the urban and rural municipalities. It would seem that farmers who are in rural municipalities are not paying higher taxes than would anyone else in the province.

The rural areas used to pay less tax on a per capita basis but this advantage has been reduced in the last few years. But with the higher rural tax increases their taxes are very comparable to urban centres. However there still exists the tax disparity within both the rural and urban municipalities.

As the taxes are normally paid by family units, to get a more familiar comparison of tax levy, one would have to multiply the per capita tax by the average size of the family.



#### Variance in Assessment Value

Before one can determine what the tax levy will be for any specific property, he must know what is both the assessed value of the property and the current mill rate. The variance in assessment value for the different areas is mainly due to the variance in the amount of industrial and commercial property. A high per capita assessment usually indicates the presence of a lot of non-residential property on which property tax can be levied.

The per capita assessment is shown in Table 9 and 10 and are summarized as follows.

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Cities	\$ 2,031
Towns	1,534
Villages	1,446

#### Rural

Counties	\$ 2,101
Municipal Districts	1,812
Improvement Districts	1,887
Special Areas	1,845

The above indicates that cities and counties collect a larger share of their taxes from industrial and commercial property and less from the individual home owners than do the other municipalities. The villages and towns would have the lowest per capita assessment and so the homeowners would have to carry the greatest burden of the taxes themself.

#### Variance in Mill Rate

To determine the amount of tax that is going to be paid, the current mill rate is applied to assessed value of the property. The larger the revenue required to be collected by the municipality the higher will have



to be the mill rate. Each municipality has its own mill rate for municipal finance, school foundation program, hospital systems benefit program, supplementary school requisition and supplementary hospital requisition.

The mill rates for the municipal divisions are shown in Tables 11 and 12 for 1966. These are summarized as follows.

	Number of Municipalities	Average Mill Rate
Urban		
Cities	9	51.4
Towns	99	60.2
Villages	163	56.6
Rural		
Counties	28	63.3
Municipal Districts	21	55.7
Improvement Districts	52	52.7
Special Areas	3	21.9

As would be expected, towns and villages because they have a lower per capita assessment must have a higher mill rate to collect the necessary amount of revenue. The higher mill rate for counties cannot be readily explained.

#### E. ANALYSIS OF FARM INCOME

Property taxes are normally not expected to be related to any specific income a person may have. However at the same time, the Farmer's Union brief suggests that farmers pay lower property tax because their incomes are lower. We therefore must make an examination of what farm incomes might be.



#### Personal Income for Alberta

Personal income on a per capita basis is well documented in the National Accounts figures and is readily useable to make income comparisons between provinces. However these figures are not given for incomes by areas on occupational groups within the province.

The five main sources of income within the province are as follows.

- 1. Wages and salaries.
- 2. Income from farm production.
- 3. Income from unincorporated business.
- 4. Interest, dividend and rentals.
- 5. Government transfer payments.

These categories include all the incomes received by individuals within the province. Profits made by corporations are omitted because they would be duplicated by dividends.

Tables 13 and 14 show personal incomes per person for Alberta for years 1957 to 1966. The per capita income for 1966 was shown as \$2,241. If the average size of family was three persons, then the average income per family would have been \$6,723.

If there were comparative personal income figures by occupational groups we could easily compare their income positions with the provincial average. We would know which occupational groups have high incomes and which have low incomes. This kind of comparison is impossible to make at the present time.

#### Personal Income of Farmers

Farmers in the past have never been enumerated during the census enumeration for their farm net income or non-farm income. Therefore the census enumeration is of no help to us.

The most commonly used figures to represent the farm income position is the <u>net income received by farm operators from farm production</u>. These figures are shown in the National Accounts and Annual Farm Net Income publications. Both of these statistics are put out by the Dominion



Bureau of Statistics. The value of net income from farm production is somewhat higher in the National Accounts publication than it is in the Annual Farm Net Income. Tables 15 and 16 give the farm income figures from the two publications.

The National Accounts reports income from farm production for Alberta in 1966 to be \$425,000,000. If we divide this figure by 69,411, the number of census farm during this year, we get an average farm family income of \$6,123 per farm operator.

For a farm population of 281,583 the per capita income from farm production would be \$1,509. At first, it would seem that the farmer's income is considerably lower than the per capita income for Alberta. However these figures are not readily comparable. Farmers receive a lot of non-farm income which is not included in the \$1,509 per capita figure.

Although the above figures are not comparable as is apparent, many agencies use these figures as if they represented the entire farmer's income. The farmer's total income is considerably higher. However, when agencies want to show depressed farm incomes to gain government concessions, they will continue to misrepresent farm incomes.

#### Wages and Salaries Received by Farmers

There are no ways of telling exactly what farmers earned in wages and salaries, but there are ways of approximating what they might have received. During the 1966 census, farmers were asked as to the number of days they worked off their farms. This enumeration is shown in Table 17.

The number of days the census farmers worked off their farms was approximated at 3,146,046 days. If we apply a wage rate of \$20 a day, the total wage and salary income to the Alberta farmer in 1966 would have been \$62,920,920. Under the above assumptions, the census farmer would have earned \$906 per year or \$223 on a per capita basis.



#### Capital Gains

Whether capital gains should be considered to be a form of farm income might be argued. But this is a form of economic betterment which accrues to a farmer which does not accrue to a wage earner or a debenture holder. Farmers fully appreciate the economic significance of this gain especially when they have to make a decision of leaving the farm or staying on it.

The publication "Farm Land Prices in Saskatchewan" had the following to say regarding capital gains in Saskatchewan.

"Capital gain has been a major earner of income for landholders in recent years and in Canada this is an income tax free earning. In 1966 the value of such capital gain in Saskatchewan was likely over \$600,000,000."

In this analysis we tried to approximate what the capital gains might have been for Alberta farmers. The best source of information in this regard was the Dominion Bureau of Statistics estimate of annual land and building values. We listed these values on Table 18 for the last ten years.

Our calculation indicates that the average annual increase in land and building value on Alberta farms for the period from 1957 to 1961 was \$79,808,000 per year and for the second period 1962 to 1966 the increase was to \$209,840,240 per year. During the last five years, the average per capita gain per year was \$745. This gain per year for the census farmer was \$3,023.

Some of the capital gain would have been due to an increased amount of land being brought into agricultural use and part of it would have been due to new buildings going up. Between 1961 and 1966 there was an increase of 3.7 percent of new land being farmed. In 1961, acreage being farmed was 47,228,653 acres and it rose to 48,982,875 in 1966.

New buildings would have not added much to capital gains. Although new buildings are constantly being put up, existing buildings constantly depreciate and the net change in farm building value is negligible.



Our computation of capital gains in Alberta between the two periods 1956-1961 and 1962-1966 showed a land and building value increase of 49.0 percent. The Saskatchewan study showed an increase in land and building value during this period of 65 percent. See Table 19.

### Other Incomes Earned by Farmers

In this analysis we did not try to approximate what the farmer's total personal income might have been from all the other sources. These could have included dividends, interest, rentals, business enterprises which are operated in conjunction witht the farm and government transfer payments such as family allowance and old age pensions.

#### Tax Burden

The farmer is normally not aware of what taxes are paid by the other segments of our economy. He has no way of comparing his position with regard to other people. The farmer is basically concerned with tax increases on his own property.

However, with changing prices, increase in taxes is inevitable. The best one can hope for is that taxes should not rise more rapidly than the other costs. We made a comparison of farm operating costs and depreciation as against farm property tax. See Table 20.

According to the Dominion Bureau of Statistics estimates, during the 1957 to 1961 period, taxes were 6.08 percent of the total farm operating and depreciation expense. However in the second period 1962 to 1966 taxes were only 5.31 percent. We note that between these two periods operating and depreciation expenses rose by 35.70 percent while taxes rose by only 18.53 percent.

Farm taxes, as expected, have been rising steadily but so have all the other costs. As a matter of fact, farm taxes have not been rising proportionally to other farm costs as would have been expected.



#### D. CONCLUSION

In reviewing the Farmer's Union brief, we must accept the authenticity of the figures being presented. However, as is usually common with figures, it is possible to manipulate them to reach a conclusion which agrees with one's bias.

If we examine the per capita tax between the urban and rural municipalities, there does not appear to be any real inequities. If there was any unfairness in the distribution of the tax burden it would be within the urban and rural municipalities themselves.

Disparity of property tax levy based on relative size of personal income was not conclusively shown in the brief presented by the Farmer's Union. There are no complete statistics on personal income figures by occupational groups. Even the very definition of income seems to be in a process of change. Capital gains might easily be considered to be income in the future.

We have to admit that there are regions of agricultural poverty similar to regions of urban poverty. But this submission does not mean that farm poverty is more severe than urban poverty. We feel that farm income and non-farm income is perhaps closer together than is normally realized.

We have to agree with the Farmer's Union that by assessing the farm buildings and reducing the mill rates so that there is no increase in tax to the municipality, the farmer would probably have to pay alot more tax anyway. This would be due to the farmers paying only a share of total municipal tax. See Table 21. If the mill rate went down, non-farmers would benefit from lower taxes. Farmers on the other hand with increased assessment and reduced mill rates would have to pay more tax.

It is desirable to have farm buildings brought into our system of property taxes. But if the farmers have to pay additional property tax they will naturally object. It might be suggested that in the change over to a new taxation system, farm land assessment could be reduced



by the amount of building assessment. This way we would have a change over to a more equitable system of taxation without penalizing the farmers.

The idea of having property tax tied in to personal incomes does not have too much merit. For one thing, municipal authorities do not have any information on personal incomes to make this kind of tax levy.

Property tax as the name implies is based on the valuation of property and should remain so. If society should feel that taxes must be related to one's income then this sould be done through means of income tax and not property tax.

Although it might seem at first that income tax is one of the fairest taxes in principle, it is by no means a perfect tax. It is riddled with loop holes and means of avoidance which is not characterized by another tax. Property tax at least minimizes avoidance of one form or another.



Table 1

TOTAL POPULATION, FARM POPULATION AND

CENSUS FARMS, ALBERTA

<u>Year</u> 1956 1957 1958 1959 1960 1961	Census Farms 1/ 79,424 78,980 77,538 76,096 74,654 73,212	Population on Census Farms 1/ 332,191 323,314 314,439 305,564 296,689 287,814	Total Population in Alberta 2/ 1,123,116 1,164,000 1,206,000 1,248,000 1,291,000 1,331,944
1962	72,451	286,567	1,369,000
1963	71,691	285,321	1,403,000
1964	70,931	284,075	1,429,000
1965	70,171	282,829	1,450,000
1966	69,411	281,583	1,463,203

<sup>1/ 1966</sup> Census of Canada, Agriculture, Alberta. Cat. No. 96-610. Information between census years was prorated.

D.B.S. Estimated Population of Canada by Province at June 1, 1967. Cat. No. 91-201.



PER CAPITA CHANGE IN PROPERTY TAX LEVY
FOR DIFFERENT REGIONS, ALBERTA
CITIES

Table 2

<u>Year</u>	Population -number-	<u>Tax</u> <u>Levy</u>	<u>Tax Levy</u> <u>Per Capita</u>
1957	508,463	\$ 41,896,420	
1958	548,767	49,064,286	
1959	580,786	54,693,253	
1960	602,526	61,472,185	
1961	619,415	68,133,165	
	2,859,957	\$275,259,309	\$ 96.24
1962	669,876	\$ 78,655,041	
1963	708,686	82,646,705	
1964	766,481	86,113,739	
1965	783,908	95,317,472	
1966	811,047	100,202,895	
	3,739,998	\$442,935,852	\$118.43

Tax Increase Between Periods
Per Capita .... \$22.19

Percent ..... 23%



Table 3

PER CAPITA CHANGE IN PROPERTY TAX LEVY

FOR DIFFERENT REGIONS, ALBERTA

TOWNS

Year	Population -number-	<u>Tax</u> <u>Levy</u>	Tax Levy Per Capita
1957	159,940	\$ 9,554,149	
1958	169,834	10,343,655	
1959	180,932	11,916,808	
1960	195,690	14,679,405	
1961	210,091	16,225,306	
	916,487	\$ 62,719,323	\$68.43
1962	197,642	\$ 15,748,444	
1963	201,201	17,162,061	
1964	165,908	14,548,102	
1965	173,203	15,960,447	
1966	181,188	17,654,300	
	919,142	\$ 81,073,354	\$88.20

Tax Increase Between Periods

Per Capita .... \$19.77

Percent ..... 29%



PER CAPITA CHANGE IN PROPERTY TAX LEVY
FOR DIFFERENT REGIONS, ALBERTA

VILLAGES

Year	Population -number-	<u>Tax</u> <u>Levy</u>	Tax Levy Per Capita
1957	47,483	\$ 2,864,971	
1958	50,588	2,999,944	
1959	49,852	3,213,281	
1960	51,098	3,491,580	
1961	50,345	3,509,009	
	249,366	\$ 16,078,785	\$64.47
1962	48,680	\$ 3,527,259	
1963	50,009	3,777,789	
1964	50,844	4,157,127	
1965	50,929	4,402,317	
1966	47,295	4,367,349	
	247,757	\$ 20,231,841	\$81.66

Tax Increase Between Periods
Per Capita .... \$17.19
Percent ..... 27%



Table 5

PER CAPITA CHANGE IN PROPERTY TAX LEVY

FOR DIFFERENT REGIONS, ALBERTA

COUNTIES

Year	Population -number-	<u>Tax</u> <u>Levy</u>	<u>Tax Levy</u> <u>Per Capita</u>
1957	45,354	\$ 4,025,141	
1958	65,923	5,828,812	
1959	79,415	6,529,760	
1960	78,884	6,646,017	
1961	121,315	11,389,402	
	390,891	\$ 34,419,132	\$ 88.05
1962	146,213	\$ 14,717,135	
1963	174,936	18,162,263	
1964	205,258	23,135,470	
1965	218,590	25,448,058	
1966	203,589	26,572,324	
	948,586	\$108,035,250	\$113.89

Tax Increase Between Periods
Per Capita .... \$25.84

Percent ..... 29%



PER CAPITA CHANGE IN PROPERTY TAX LEVY

FOR DIFFERENT REGIONS, ALBERTA

MUNICIPAL DISTRICTS

Table 6

Year	Population -number-	<u>Tax</u> <u>Levy</u>	<u>Tax Levy</u> <u>Per Capita</u>
1957	284,665	\$ 22,928,610	
1958	262,208	20,974,603	
1959	249,439	20,878,224	
1960	252,268	22,331,876	
1961	210,345	20,376,985	
	1,258,925	\$107,490,298	\$ 85.38
1962	180,606	\$ 17,945,595	
1963	153,082	16,150,628	
1964	123,234	13,569,622	
1965	127,569	13,773,083	
1966	127,808	14,355,997	
	712,299	\$ 75,794,925	\$106.40

Tax Increase Between Periods

Per Capita .... \$21.02

Percent ..... 25%



PER CAPITA CHANGE IN PROPERTY TAX LEVY

FOR DIFFERENT REGIONS, ALBERTA

IMPROVEMENT DISTRICTS

Table 7

Year	Population -number-	Tax Levy	<u>Tax Levy</u> <u>Per Capita</u>
1957	82,806	\$ 2,430,880	
1958	71,510	2,384,752	
1959	76,949	2,297,164	
1960	76,949	2,539,503	
1961	81,969	3,273,418	
	390,183	\$ 12,925,717	\$33,12
1962	81,969	\$ 4,170,828	
1963	82,476	4,648,379	
1964	82,518	5,499,793	
1965	80,946	5,999,206	
1966	80,020	6,409,200	
	407,929	\$ 26,727,406	\$65.51

Tax Increase Between Periods

Per Capita .... \$32.39

Percent ..... 98%



PER CAPITA CHANGE IN PROPERTY TAX LEVY

FOR DIFFERENT REGIONS, ALBERTA

SPECIAL AREAS

Table 8

Year	Population -number-	<u>Tax</u> <u>Levy</u>	Tax Levy Per Capita
1957	8,723	\$ 393,786	
1958	8,723	429,679	
1959	8,723	476,232	
1960	8,723	502,335	
1961	8,799	683,666	
	43,691	\$ 2,485,698	\$56.89
1962	8,799	\$ 634,275	
1963	8,799	643,652	
1964	8,799	714,203	
1965	8,799	893,655	
1966	8,799	990,367	
	43,995	\$ 3,876,152	\$88.10

Tax Increase Between Periods

Per Capita .... \$31.21

Percent ..... 55%



Table 9

VARIANCE IN ASSESSMENT FOR URBAN REGIONS OF ALBERTA, 1966

Assessment \$	1,647,216,806	277,957,918	68,376,761
Other \$	109,790	I I I I I I	[
Business Tax \$	76,092,267 109,790 94 <b>0.1</b>	1,905,291 22,062,245	508,670 . 4,945,629
Pipe Line	5,704,430		508,670
Electric Power Line \$	2,101,490	3,569,760	1,010,190
Building and Improvements \$	1,033,774,759	207,051,954 3,569,760	54,929,928 1,010,190 1,161 21
Land	529,434,070	43,368,668	6,982,344
Population	811,047	181,188	47,295
	Cities -total -per person	Towns -total -per person	Village -total -per person

Computed from information in Annual Report of the Department of Municipal Affairs, Alberta, 1966. Source:



VARIANCE IN ASSESSMENT FOR RURAL REGIONS OF ALBERTA, 1966

Assessment \$	427,737,909	2,101	231,591,768	1,812	150,994,573	1,887		16,236,904	1,845
Other	- î	1 1 1	1 1 1	t t	t 1 1	\$ \$ \$ \$ \$		1 1 1	1
Business Tax \$	427,310	2	237,694	7	1 1	1 E 1		I I š	1 f 1
Pipe Line \$	7,891,560 57,083,540	280	9,417,310 24,162,430	189	1 1 1	2 5 1		\$ \$ \$	70 m E
Electric Power Line	7,891,560	39	9,417,310	74	 	1 4 8		f i i	† † \$
Building and Improvements \$	88,012,703	432	38,846,011	304	114,401,920	1,429		7,799,420	886
Land	274,322,796	1,347	158,928,323	1,243	36,592,653	457		8,437,484	626
Population \$	203,589		127,808		80,020			8,799	
	Counties - total	-per person	Municipal Districts -total	-per person	Improvement Districts -total	-per person	Special Areas	-total	-per person

Source: Computed from information in Annual Report of the Department of Municipal Affairs, Alberta, 1966.



Table 11

VARIANCE IN MILL RATE FOR URBAN REGIONS OF ALBERTA, 1966

Total			51.4	60.2	9*95
Supplementary Hospital Requisition	8.	6	0.2	49.8	84,3 163 0,5
Supplementary School Requisition	45.1	6	5.0	713.6	686.8 163 4.2
Hospital System, Benefit Program	36.6	6	4.1	387.3	1,074.1 163 6.6
School Foundation Program	220.0	0	24.4	2,363,2	4,218.8 163 25.9
Municipa1	158.9	6	17.7	2,441.6 99 24.7	3,165.9 163
	Cities - total	- number	average	Towns - total - number - average	Villages - total - number - average

Source: Computed from information in Annual Report of the Department of Municipal Affairs, Alberta, 1966.



Table 12

VARIANCE IN MILL RATE FOR RURAL

# REGIONS OF ALBERTA, 1966

Total	63.3	1	55.7	52.7	21.9
Supplementary Hospital Requisition	8.7 28 0.3	10.4	0,0	52 .9	1.5
Supplementary School Requisition	253.7 28 9.1	185.0	8 6	1.0	11.2 3
Hospital System, Benefit Program	120.5 28 4.3	101.3	4,00	1/3.0	4.0
School Foundation Program	786.1 28 28.1	643.8	30.7	1,311.0 52 25.2	26.0
Municipal	602.6 28 21.5	228.5	10.9	722.0 52 13.9	23.0
	Counties - total - number - average	Municipal Districts - total - number	- average Improvement	Districts - total - number - average	Special Areas - total - number - average

Computed from information in Annual Report of the Department of Municipal Affairs, Alberta, 1966. Source:



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NATIONAL ACCOUNTS - INCOME

ALBERTA, 1957 - 1966

$\frac{1965^{4}}{\$}$ $\frac{1966^{4}}{\$}$	1,737,000,000 1,974,000,000	331,000,000 425,000,000	242,000,000 250,000,000	268,000,000 296,000,000	346,000,000 404,000,000	- 21,000,000 - 71,000,000	2,903,000,000 3,278,000,000	2 261
1964-	1,540,000,000	272,000,000	229,000,000	251,000,000	302,000,000	- 23,000,000	2,571,000,000	1 700
19634/	1,424,000,000	309,000,000	217,000,000	241,000,000	280,000,000	- 16,000,000	2,455,000,000	027
19624/	1,355,000,000	282,000,000	213,000,000	225,000,000	, 272,000,000	- 14,000,000	2,333,000,000	701
	Wages, salaries and supplementary labour income	Net income received by farm operators from farm production	Net income of non-farm unincorporated business	Interest, dividends, and net rental income of persons	Government transfer payments, excluding interest	Items not broken down by provincial distribution	Personal income	

Source: National Accounts, Income and Expenditure

4/ 1967 Publication



Table 15

FARM INCOME

		ALBERTA			
	1957	1958	1959	1960	1961
1. Cash Receipts	433,551,000	480,677,000	478,770,000	471,073,000	528,684,000
2. Income in kind	43,097,000	47,206,000	46,252,000	49,278,000	48,874,000
3. Supplementary payments	000,506	19,394,000	7,128,000	25,010,000	8,233,000
<pre>4. Realized gross income   (1 + 2 + 3)</pre>	477,553,000	547,277,000	532,150,000	545,361,000	585,791,000
5. Operating and depreciation charges	275,981,000	294,067,000	312,534,000	325,072,000	340,313,000
6. Realized net income (4 - 5)	201,572,000	253,210,000	219,616,000	220,289,000	245,478,000
7. Value of inventory changes	-40,350,000	- 6,432,000	- 1,868,000	-21,190,000	-39,610,000
8. Total gross income (4 + 7)	437,203,000	540,845,000	530,282,000	524,171,000	546,181,000
9. Total net income (8 - 5)	161,222,000	246,778,000	217,748,000	199,099,000	205,868,000



FARM INCOME ALBERTA

1965	654,187,000 756,950,000	65,156,000 69,689,000	3,967,000 5,983,000	723,310,000 832,622,000	450,153,000 493,846,000	273,157,000 338,776,000	24,154,000 46,673,000	747,464,000 879,295,000	297,311,000 385,449,000
1964	597,823,000	57,404,000	7,466,000	659,693,000	421,927,000	237,766,000	- 1,261,000	658,432,000	) 236,505,000
1963	523,313,000	54,089,000	6,895,000	584,297,000	392,891,000	191,406,000	000,666,86	678,296,000	285, 405, 000
1962	552,394,000	50,864,000	21,387,000	624,645,000	369,782,000	254,863,000	15,608,000	640,253,000	000 127 026
	1. Cash receipts	2. Income in kind	3. Supplementary payments	<pre>4. Realized gross income (1 + 2 + 3)</pre>	5. Operating and depreciation charges	6. Realized net income (4 - 5)	7. Value of inventory changes	8. Total gross income (4 + 7)	9. Total net income

D.B.S., Handbook of Agricultural Statistics, Part II, 1926 - 65, Cat. No. 21,511. D.B.S., Net Farm Income, Cat. No. 21-202. Sources:



Table 17

ESTIMATED TOTAL WAGES AND SALARIES

EARNED BY FARMERS, ALBERTA, 1966

Pari Wo		of Time k	Average Days of Work	Number of Farms 1/	Total Days of Work
1	-	6	3.5	1,217	4,260
7	-	12	9.5	1,296	12,312
13	-	24	13.5	1,501	20,264
25	-	48	36.5	2,254	82,271
49	-	72	60.5	2,387	144,414
73	-	96	84.5	1,840	155,480
97	-	126	111.5	2,481	276,632
127	-	156	141.5	1,417	200,506
157	-	228	192.5	3,216	619,080
229	-	365	297.0	5,491	1,630,827
			Total number of worked off the	•	3,146,046
			Estimated incor	ne per day	\$ 20.00
			Total wage and earned by farme		\$62,920,920

1/ Source: Census of Agriculture, Alberta, 1966 Cat. No. 96-610.



Table 18

## CAPITAL GAINS IN FARM VALUES, ALBERTA

	Land and Buildings Value
	bullulings value
1957	\$ 1,316,323,000
1958	1,466,140,000
1959	1,515,845,000
1960	1,665,662,000
1961	1,715,367,000
Total	\$ 7,679,337,000
Increase in value	<u> </u>
(1957-1961)	\$ 399,044,000
Average increase in value per year	\$ 79,808,800
1962	\$ 1,816,271,000
1963	1,984,444,000
1964	2,219,887,000
1965	2,556,234,000
1966	2,865,472,200
Total	\$11,442,308,200
Increase in value (1962-1966)	\$ 1,049,201,200
Average increase in value per year	\$ 209,840,240
Percent increase in capital value between the two periods	49.0%

Sources: Quarterly Bulletin of Agricultural Statistics, Cat. No. 21-003.

Census of Agriculture, Alberta, 1966, Cat. No. 96-610.



Table 19

## AVERAGE LAND VALUES (INCLUDING BUILDINGS) PER ACRE OF ACCUPIED FARM LAND IN

#### SASKATCHEWAN

Year	Value for Year per Acre	Average Value for Period per Acre
1957	\$ 32	
1958	33	
1959 .	34	
1960	36	
1961	37	
	\$172	\$ 34
1962	\$ 40	
1963	47	
1964	55	
1965	66	
1966	76 '	
	\$284	\$ 57

Increase Between the Two Periods

Dollars	\$112
Percent	65%

Source: Farm Land Prices in Saskatchewan, Table 26.



Table 20

## TAXES PAID BY FARMERS AS COMPARED TO TOTAL FARM OPERATING COSTS, ALBERTA

Year		ing and ciation rges	Ow	Caxes on med Land Buildings	of T	as Percentage otal Operating Depreciation Charges
						Charges
1957	\$ 275	,981,000	\$ 1	7,629,000		
1958	294	,067,000	1	7,847,000		
1959	312	,534,000	1	8,404,000		
1960	325	,072,000	1	9,662,000		
1961	340	,313,000	. 2	0,500,000		
	\$1,547	,967,000	\$ 9	4,042,000		6.08%
1962	\$ 369	,782,000	\$ 2	0,900,000		
1963	392	,896,000	2	1,400,000		
1964	411,	,630,000	2	1,900,000		
1965	440	,405,000	2	2,500,000		
1966	485	,889,000	2	4,763,930		
	\$2,100	,602,000	\$11	1,463,930		5.31%
Increase between the two						
periods	\$ 552,	,635,000	\$ 1	7,421,930		
Incr	ease	35.70%	Incre	ase 18.53%	Decrease	12.66%

Sources: DBS Handbook of Agricultural Statistics
Part 11, 1926 - 65, Cat. No. 21-511.

Census of Agriculture, Alberta, 1966

Cat. No. 96-610.



Table 21

# COMPARISON OF TAXES AS REPORTED BY DEPARTMENT OF MUNICIPAL AFFAIRS AND DOMINION BUREAU OF STATISTICS

			<u>Taxes</u> , Counties,
<u>Year</u>	Taxes on Owned Land and Buildings 1/	<u>Rent</u> <u>1</u> /	Municipal Districts, Improvement Districts, and Special Areas 2/
1957	\$17,629,000	\$16,732,000	\$29,778,417
1958	17,847,000	19,738,000	29,617,846
1959	18,404,000	21,218,000	30,181,380
1960	19,662,000	24,146,000	32,019,731
1961	20,500,000	25,006,000	35,723,471
1962	20,900,000	28,012,000	37,467,833
1963	21,400,000	32,589,000	39,604,922
1964	21,900,000	27,685,000	42,919,088
1965	22,500,000	32,200,000	46,114,002
1966	24,763,930	27,256,560	48,327,888

Sources: 1/ DBS Handbook of Agricultural Statistics, Part 11, 1926-65, Cat. No. 21-511.

<sup>2/</sup> Annual Report of the Department of Municiapl Affairs, Alberta.



## COOPERATIVE EXTENSION ? . . . .

The Pennsylvania State University, University Park, Pennsylvania 16862
The Pennsylvania State University and the U. S. Department of Agriculture Cooperating

# FARM ECONOMICS

Norwaller Sor

## The Distribution of Agricultural Income in The United States and Pennsylvania

James B. Herendeen, Associate Professor of Economics

In 1964-65 average realized net farm income\* per farm in the United States was \$3,969; for Pennsylvania the comparable figure was \$3,141. Does this mean that farmers are in bad shape and are in general only slightly above a poverty existence? The answer is no. It merely proves that average income statistics can be very misleading. These averages are obtained by dividing total farm incomes for the United States and Pennsylvania by total numbers of farms. However, Census definitions of farms include many farms that receive most of their income from nonfarm sources, and farms that are subsistence or retirement farms. If we define commercial farms as all farms with sales over \$5,000, then we find that only 43.5 percent of all U.S. census farms were commercial in 1964-65 (Table 1). In Pennsylvania, the percentage was the same. The percentage of farms by economic class is presented in Table 2. The average realized net farm income per commercial farm for these years was \$8,626 for the United States and \$7,142 for Pennsylvania - more than double the figures for all farms.

However these figures do not include off-farm income. When off-farm income is included, average realized net

° 1964-65 income figures are used because data from the 1964 Census of Agriculture are a means of estimating net incomes by economic class of farm. More recent income figures are slightly higher — U.S. 1967 \$4,526 and Pennsylvania \$3,232 — but the general conclusions are the same. Realized net farm income is cash receipts plus government payments plus the value of home-consumed food and the rental value of farm dwellings, minus all production expenses.

Table 1. All farms	and commerci	al farms
	U.S.	Pennsylvania
All farms	3,385,000	86,500
Commercial farms	1,472,000	37,600
% Commercial	43.5	43.5

Table 2. Percentage of farms	in each	economic class
Sales (thousands of dollars)	U.S.	Pennsylvania
Class IA (over \$100)	1.0	.6
Class IB (40-99.9)	3.5	2.6
Class II (20-39.9)	8.2	8.8
Class III (10-19.9)	14.8	16.9
Class IV (5-9.9)	16.0	14.6
Non commercial (under 5)	56.5	56.5

income per commercial farm was \$10,664 for the U.S. and \$8,978 for Pennsylvania. These figures may still represent low returns on the resources owned by commercial farm operators, but they do clearly remove these farmers from the poverty category.

Table 3. Average realized net income from farming and from nonfarm sources - commercial and noncommercial farms

	U	. S.	Pennsylvania		
	Com- mercial	Non- Commercial		Non- Commercial	
From farming only					
per farm	\$8,626	\$386	\$7,142	\$94	
per family worker	5,351	381	3,751	91	
With off-farm income	added				
per farm	10,664	3,283	8,973	3,719	
per family worker	6,615	3,237	4,709	3,581	



It might be argued, however, that we are not interested in incomes of farms but rather incomes of people. If we convert the above figures to a per worker basis (Table 3), we see that average realized net farm income per family worker on commercial farms was \$5,351 for the United States and \$3,751 for Pennsylvania. When off-farm incomes are included, the net income per family worker is \$6,615 for the United States and \$4,739 for Pennsylvania. It should also be noted that the incomes of noncommercial farms are made up almost entirely of off-farm income.

## The income structure of agriculture

However, to get even a better look at the income structure of agriculture we should look at incomes of commercial farms by economic class. These classes represent annual total sales categories: class IA, sales over \$100,000; class IB, sales from \$40,000 to \$99,999; class II, sales from \$20,000 to \$39,999; class III, sales from \$10,000 to \$19,999; class IV, sales from \$5,000 to \$9,999. Noncommercial includes all other farms. Thus we see, for example, that average realized net farm income for Table 4. Average realized net income from farming (per farm)

by economic cass				
		U.S. share of total net income		of total
	\$	(%)	\$	(%)
Class IA	79,559	20	68,600	13
Class IB	22,110	19	<b>2</b> 2,391	19
Class II	10,863	22	9,368	26
Class III	5,796	22	5,500	29
Class IV	2,712	11	2,365	11
Noncommercial	386	6	94	2

farms with sales over \$100,000 was \$79,559 for the U.S. and \$68,600 for Pennsylvania. Average realized net farm income for class IV farms was only \$2,712 for the U.S. and \$2,365 for Pennsylvania. Average farm income per family worker on farms with sales over \$100,000 was \$57,553 for the U.S. and \$42,875 for Pennsylvania. For class IV farms the family worker figures were only \$1,765 for the U.S. and \$1,380 for Pennsylvania. When off-farm income is included, national average net income per farm for class IA farms was \$83,088 and for Pennsylvania it was \$71,000. For class IV farms the U.S. figures were \$4,793 and the Pennsylvania figures were \$4.706.

Class IA farms received 20.1 percent of the realized net farm income (Table 4), but comprised only one percent of all farms. In Pennsylvania these farms received 12.6 percent of net farm income, but comprised only 0.6 percent of all farms. Farms with sales over \$10,000 (classes IA, IB, II, and III together) had average realized net farm incomes of \$12,072 in the United

Table 5. Gross and net return on equity by economic class of farm, United States and Pennsulvania, 1964-65 average

	All						
All	comm.	Comr	n. farm	is by ec	onomi	c class	Non-
farms	farms	IA	IB	II	III	IV	comm
(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
U.S.							
Gross ret. 7.9	9.9	14.1	12.1	10.0	8.6	6.1	1.8
Net ret. 3.1	5.2	10.5	9.2	5.7	3.0	-0.4	-3.5
Pennsylvania							
Gross ret. 9.2	13.5	29.1	22.1	13.1	11.9	7.1	0.5
Net ret. 1.3	4.7	23.1	15.3	5.3	2.3	-3.1	-5.7

States and \$10,098 in Pennsylvania. This group of farms received 83 percent of the net farm income and comprised 28 percent of all farms. In Pennsylvania these farms received 87 percent of net farm income and comprised 29 percent of all farms. In general income is somewhat more equally distributed in Pennsylvania than in the U.S., whether we look at farm income or total income, or at all farms or just at commercial farms. This is because Pennsylvania has a relatively lower percentage of large farms and a relatively higher percentage of medium-size farms than is the case for the United States.

#### Rates of return

So far our figures have said nothing about rates of return to resources employed in farming. In Table 5, estimated average gross and net rates of return on equity capital by class of farm for the United States and Pennsylvania are presented. Gross returns represent realized net farm income divided by equity, expressed in percent. Equity assets are equal to the value of real estate, machinery and equipment, livestock and other productive assets, minus total farm debts. Net returns were calculated after deducting an estimated labor and management income for the farm operator and family workers.\* For the United States net returns were 3.1 percent for all farms and 5.2 percent for all commercial farms. The comparable figures for Pennsylvania were 1.3 percent and 4.7 percent. As total farm sales increased, average rates of return increased consistently. Noncommercial and class IV farms received negative returns, both in the United States and in Pennsylvania. Class IA farms received net returns of 10.5 percent for the U.S. and 23.1 percent for Pennsylvania. Gross returns ran considerably higher for all classes of farms and were positive in all cases.

Operator labor income was estimated by multiplying total man hours worked by operators and family labor by the average hourly wage of hired workers. To this was added a management return equal to 5 percent of the sum of sales and government payments.



The average 1964-65 rates of return on equity for all manufacturing corporations with assets under \$1 million was 18.1 percent before taxes and 11.2 percent after taxes. These figures are not directly comparable with those above but do give some indication of rates of return for manufacturing corporations of size not greatly different than those of large scale farms.

These estimates of incomes and rates of return are subject to some error due to the difficulties inherent in attempting to allocate receipts, expenditures, and asset values among classes of farms. In particular, net rates of return may be overstated for the large farms and understated for small farms. This is because land values based on census allocations may be understated for the larger farms. Likewise, estimates of operator labor incomes may again tend to understate these values for larger farms and overstate them for smaller farms. However gross rates of return and net incomes per farm or per worker rise substantially in each higher sales class. There seems little doubt that larger farms make significantly larger incomes and higher rates of return on their invested capital. The magnitude of the differentials are such that small errors of the type discussed above would not greatly change the results.

#### Who benefits most from farm programs?

The government is currently spending large sums to support farm incomes. The question arises: who gets the benefits of these programs? In 1964-65, total direct government payments to farmers was 2.31 billion dollars. This, of course, is only a part of the government support to farm income. Farmers also have substantial gains that result from prices being higher than they would be in the absence of government programs. It is beyond the scope of this article, however, to look at this total income support to agriculture. Instead, we will look only at the allocation of direct payments.

For the United States, all commercial farms received average payments of \$1,416. Farms with sales over \$100,000 received average payments of \$11,882. Non-

Table 6. Direct government payments per farm by economic class of farm (dollars 1964-65 average)

	U.S.	Share of total payments (%)	Penna.	Share of total payments (%)
All commercial farms	\$ 1,416	90	\$ 415	77
Class IA	11,882	17	3,800	10
Class IB	3,568	18	1,217	14
Class II	1,794	22	526	20
Class III	950	21	288	20
Class IV	528	12	214	13
Noncommercial farms	118	10	96	23

commercial farms received average payments of only \$118. In Pennsylvania average payments for commercial farms were \$415, those for class IA farms \$3,800, and those for noncommercial farms were \$96. Average payments were much lower for Pennsylvania because Commonwealth farmers are not major producers of wheat, cotton or feed grains. (In 1964-65, 78 percent of direct payments went to producers of wheat, cotton, and feed grains.) Pennsylvania farmers receive most of their income support through price supports for manufactured milk and butter, and through Federal milk orders. These do not show up as direct payments. However all programs except the old Soil Bank or new Crop Land Adjustment Program are tied to production. Thus the benefits go to those who produce the most.

Total direct payments accounted for 17 percent of realized net farm income for the United States and 7.5 percent of realized net farm income for Pennsylvania. As a matter of interest, direct payments in North Dakota accounted for 51 percent of realized net farm income; in Iowa they accounted for 24 percent of net farm income. Thus we see how much more important these payments were in major wheat and feed grain states. For the United States 78 percent of payments went to farms with sales over \$10,000. These classes contained 28 percent of all farms. In Pennsylvania, 64 percent of the payments went to these same classes. They comprised 29 percent of all farms. U.S. farms with sales over \$10,000 had average payments per farm of \$1,933; it was \$549 per farm for Pennsylvania farms.

## "Averages" conceal

In conclusion we can say that, for either the United States or Pennsylvania, average farm income figures conceal more than they reveal. For policy purposes it is important to distinguish between commercial and noncommercial farms. Current farm programs do little for noncommercial farms. They have been aimed at keeping up returns of commercial farmers and the benefits go primarily to the relatively large farms. The programs should be appraised and justified (or not justified) in terms of the incomes and rate of returns of these commercial farmers.

As these figures indicate, the incomes of the larger commercial farmers do not appear to represent low returns to labor or to capital invested. However, in the absence of government programs these returns would be much lower. It is difficult to make direct comparisons with profit rates in the nonfarm economy, but it would appear that rates of return on large scale farms are not out of line with rates of return for non-farm businesses with comparable investments.



